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REMARKS

Claims 1-51 are pending in the present application. Reconsideration is respectfully requested for the following reasons.

Claims 1-8, 10, 11, 13, 14, 16-23, 25, 26, 28, 29, 31-39, 41, 42, 44, 45, 47 and 48 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,179,355 to Chou et al. "Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*" *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added). In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of anticipation based upon the prior art. *In re Sun*, 31 U.S.P.Q.2d 1451, 1453 (Fed. Cir. 1993) (unpublished). Applicants respectfully assert that the Examiner has not yet met his burden of establishing a prima facie case of anticipation with respect to the rejected claims.

Claim 1 defines an energy management system comprising a longitudinally extending beam having a front face, a first side wall and a second side wall, the first side wall having a first U-shaped section spaced from the front face and the second side wall having a second U-shaped section spaced from the front face, wherein the first side wall rolls to enlarge the first U-shaped section and the second side wall rolls to enlarge the second U-shaped section during an impact force directed against the front face of the beam.

The prior art does not disclose the above noted features of claim 1. Specifically, the Chou et al. '355 patent does not disclose a first side wall that rolls to enlarge a first U-shaped section and a second side wall that rolls to enlarge a second U-shaped section during an impact force directed against a front face of a beam along with the remaining features of claim 1. According to the Office Action, the Chou et al. '355 patent includes U-shaped sections 34 and 38. However, Applicants submit that the grooves 34 and 38 of the Chou et al. '355 patent do not roll or enlarge during an impact force directed against an outwardly facing wall 24 of the beam 18 of the Chou et al. '355 patent. Applicants submit that the grooves 34 and 38 as illustrated in Figs. 4A-4D of the Chou et al. '355 patent do not roll and not only do not enlarge, but actually get smaller. Notably, the grooves 34 and 38 in Fig. 4D are much smaller

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than the grooves 34 and 38 in Fig. 2B, wherein Fig. 2B shows the grooves 34 and 38 before any impact. Accordingly, Applicants submit that claim 1 is in condition for allowance.

Claims 2-8, 10, 11, 13, 14, 16 and 48 depend from claim 1, and since claim 1 defines patentable subject matter as discussed above, claims 2-8, 10, 11, 13, 14, 16 and 48 define patentable subject matter. Furthermore, in regard to claim 10, Applicants submit that the Chou et al. '355 patent does not disclose that a first one of the front beam portion and the rear beam portion includes a first pair of side flanges and a second one of the front beam portion and the rear beam portion includes a second pair of side flanges. Although the Office Action states that the Chou et al. '355 patent discloses that the bumper member 18 includes a pair of flanges, Applicants submit that Fig. 3 does not disclose any such flanges. Applicants respectfully request the Examiner to specifically point out any such flanges if the present rejection of claim 10 is maintained. Furthermore, in regard to claim 11, Applicants submit that the prior art of record does not disclose a second pair of side flanges are crimped over the first pair of side flanges to connect a front beam portion to a rear beam portion. First, as discussed above, Applicants submit that the Chou et al. '355 patent does not disclose any flanges. Second, Applicants submit that there are no flanges crimped over other flanges anywhere in the Chou et al. '355 patent. Moreover, in regard to claim 13, Applicants submit that the Chou et al. '355 patent does not disclose a front beam portion comprised of a first material and a rear beam portion comprised of a second material, with the first material being different than the second material. Applicants submit that the Chou et al. '355 patent does not expressly or necessarily disclose a front beam portion comprised of a material different than a rear beam portion. Furthermore, in regard to claim 16, the Chou et al. '355 patent does not disclose any U-shaped sections that extend outwardly. Applicants submit that the Chou et al. '355 patent clearly discloses that the grooves 34 and 38 extend inwardly. Accordingly, claims 2-8, 10, 11, 13, 14, 16 and 48 are in condition for allowance.

Claim 17 defines an energy management system comprising a longitudinally extending beam having a front face, a first side wall and a second side wall, an energy absorber located adjacent the front face of the beam and mounts engaging a rear of the beam for connecting the beam to a vehicle. The first side wall has a first U-shaped section spaced from the front face

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and the second side wall has a second U-shaped section spaced from the front face. The first side wall rolls to enlarge the first U-shaped section and the second side wall rolls to enlarge the second U-shaped section during an impact force directed against the front face of the beam.

The prior art does not disclose the above noted features of claim 17. Specifically, the Chou et al. '355 patent does not disclose a first side wall that rolls to enlarge a first U-shaped section and a second side wall that rolls to enlarge a second U-shaped section during an impact force directed against a front face of a beam along with the remaining features of claim 17. According to the Office Action, the Chou et al. '355 patent includes U-shaped sections 34 and 38. However, Applicants submit that the grooves 34 and 38 of the Chou et al. '355 patent do not roll or enlarge during an impact force directed against an outwardly facing wall 24 of the beam 18 of the Chou et al. '355 patent. Applicants submit that the grooves 34 and 38 as illustrated in Figs. 4A-4D of the Chou et al. '355 patent do not roll and not only do not enlarge, but actually get smaller. Notably, the grooves 34 and 38 in Fig. 4D are much smaller than the grooves 34 and 38 in Fig. 2B, wherein Fig. 2B shows the grooves 34 and 38 before any impact. Accordingly, Applicants submit that claim 17 is in condition for allowance.

Claims 18-23, 25, 26, 28, 29 and 31 depend from claim 17, and since claim 17 defines patentable subject matter as discussed above, claims 18-23, 25, 26, 28, 29 and 31 define patentable subject matter. Furthermore, in regard to claim 25, Applicants submit that the Chou et al. '355 patent does not disclose that a first one of the front beam portion and the rear beam portion includes a first pair of side flanges and a second one of the front beam portion and the rear beam portion includes a second pair of side flanges. Although the Office Action states that the Chou et al. '355 patent discloses that the bumper member 18 includes a pair of flanges, Applicants submit that Fig. 3 does not disclose any such flanges. Applicants respectfully request the Examiner to specifically point out any such flanges if the present rejection of claim 25 is maintained. Furthermore, in regard to claim 26, Applicants submit that the prior art of record does not disclose a second pair of side flanges are crimped over the first pair of side flanges to connect a front beam portion to a rear beam portion. First, as discussed above, Applicants submit that the Chou et al. '355 patent does not disclose any flanges. Second, Applicants submit that there are no flanges crimped over other flanges

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anywhere in the Chou et al. '355 patent. Moreover, in regard to claim 28, Applicants submit that the Chou et al. '355 patent does not disclose a front beam portion comprised of a first material and a rear beam portion comprised of a second material, with the first material being different than the second material. Applicants submit that the Chou et al. '355 patent does not expressly or necessarily disclose a front beam portion comprised of a material different than a rear beam portion. Furthermore, in regard to claim 31, the Chou et al. '355 patent does not disclose any U-shaped sections that extend outwardly. Applicants submit that the Chou et al. '355 patent clearly discloses that the grooves 34 and 38 extend inwardly. Accordingly, claims 18-23, 25, 26, 28, 29 and 31 are in condition for allowance.

Claim 32 defines an energy management system comprising a longitudinally extending beam including a first beam portion and a second beam portion, a first one of the first beam portion and the second beam portion having a first face, a first side wall and a second side wall, a second one of the first beam portion and the second beam portion having a second face, the first side wall having a first U-shaped section spaced from the first face and the second side wall having a second U-shaped section spaced from the first face. The first side wall rolls to enlarge the first U-shaped section and the second side wall rolls to enlarge the second U-shaped section during an impact force directed against the first face of the first beam portion or the second face of the second beam portion.

The prior art does not disclose the above noted features of claim 32. Specifically, the Chou et al. '355 patent does not disclose a first side wall that rolls to enlarge a first U-shaped section and a second side wall that rolls to enlarge a second U-shaped section during an impact force directed against a front face of a beam along with the remaining features of claim 32. According to the Office Action, the Chou et al. '355 patent includes U-shaped sections 34 and 38. However, Applicants submit that the grooves 34 and 38 of the Chou et al. '355 patent do not roll or enlarge during an impact force directed against an outwardly facing wall 24 of the beam 18 of the Chou et al. '355 patent. Applicants submit that the grooves 34 and 38 as illustrated in Figs. 4A-4D of the Chou et al. '355 patent do not roll and not only do not enlarge, but actually get smaller. Notably, the grooves 34 and 38 in Fig. 4D are much smaller

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than the grooves 34 and 38 in Fig. 2B, wherein Fig. 2B shows the grooves 34 and 38 before any impact. Accordingly, Applicants submit that claim 32 is in condition for allowance.

Claims 33-39, 41, 42, 44, 45 and 47 depend from claim 32, and since claim 32 defines patentable subject matter as discussed above, claims 33-39, 41, 42, 44, 45 and 47 define patentable subject matter. Furthermore, in regard to claim 41, Applicants submit that the Chou et al. '355 patent does not disclose that the first beam portion includes a first pair of side flanges and the second beam portion includes a second pair of side flanges. Although the Office Action states that the Chou et al. '355 patent discloses that the bumper member 18 includes a pair of flanges, Applicants submit that Fig. 3 does not disclose any such flanges. Applicants respectfully request the Examiner to specifically point out any such flanges if the present rejection of claim 41 is maintained. Furthermore, in regard to claim 42, Applicants submit that the prior art of record does not disclose a second pair of side flanges are crimped over the first pair of side flanges to connect a first beam portion to a second beam portion. First, as discussed above, Applicants submit that the Chou et al. '355 patent does not disclose any flanges. Second, Applicants submit that there are no flanges crimped over other flanges anywhere in the Chou et al. '355 patent. Moreover, in regard to claim 46, Applicants submit that the Chou et al. '355 patent does not disclose a first beam portion comprised of a first material and a second beam portion comprised of a second material, with the first material being different than the second material. Applicants submit that the Chou et al. '355 patent does not expressly or necessarily disclose a front beam portion comprised of a material different than a rear beam portion. Furthermore, in regard to claim 47, the Chou et al. '355 patent does not disclose any U-shaped sections that extend outwardly. Applicants submit that the Chou et al. '355 patent clearly discloses that the grooves 34 and 38 extend inwardly. Accordingly, claims 33-39, 41, 42, 44, 45 and 47 are in condition for allowance.

Claims 9, 12, 24, 27, 40 and 43 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Chou et al. '355 patent in view of U.S. Patent No. 6,726,261 to Goto et al. As further discussed below, Applicants respectfully submit that a *prima facie* case of obviousness has not been established. The test for obviousness has recently been addressed by the U.S. Supreme Court in *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30,

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2007). In its decision, the Supreme Court stated that the teaching-suggestion-motivation (TSM) standard developed by the Federal Circuit was no longer the sole test for determining obviousness. Nevertheless, the Court indicated that the TSM test provides helpful insights as to the obviousness of the invention. With respect to the TSM test, the U.S. Patent and Trademark Office, which had adopted that test, set forth the requirements for making a *prima facie* case of obviousness are described in MPEP §2143 as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. *Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.*

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). [emphasis added]

The U.S. Supreme Court held that the TSM standard was not the sole standard for finding obviousness, one element to the finding of a *prima facie* case of obviousness is common to both the TSM standard and the standards that may otherwise fall within the per view of the *KSR* decision. Specifically, each and every element of the claimed invention must still be found in the prior art. As will be set forth below, there are elements of the claimed invention that are missing in their entirety from the cited prior art.

Further, with respect to the recent Supreme Court decision in *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007), the Deputy Commissioner for Patent Operations has issued a memo advising the examiners that "in formulating a rejection under 35 U.S.C. § 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed."

Claims 9 and 12 depend from claim 1, claims 24 and 27 depend from claim 17 and claims 40 and 43 depend from claim 32, and since claims 1, 17 and 32 define patentable subject matter as discussed above, claims 9, 12, 24, 27, 40 and 43 define patentable subject

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matter. Furthermore, in regard to claims 12, 27 and 43, since Applicants submit that the Chou et al. '355 patent does not disclose any side flanges as discussed above, Applicants submit that it is not obvious to weld any side flanges together as claimed in claims 12, 27 and 43. Accordingly, Applicants submit that claims 9, 12, 24, 27, 40 and 43 are in condition for allowance.

New claims 49-51 depend from claims 1, 17 and 32, respectively, and state that the first U-shaped section includes a first mouth opening in a direction towards the front or first face of the beam and the second U-shaped section includes a second mouth opening in the direction towards the front or first face of the beam. Applicants submit that the cited art of record clearly does not disclose any such U-shaped sections. Accordingly, claims 49-51 are in condition for allowance.

All pending claims 1-51 are in condition for allowance, and a Notice of Allowability is therefore earnestly solicited.

Respectfully submitted,

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Date


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